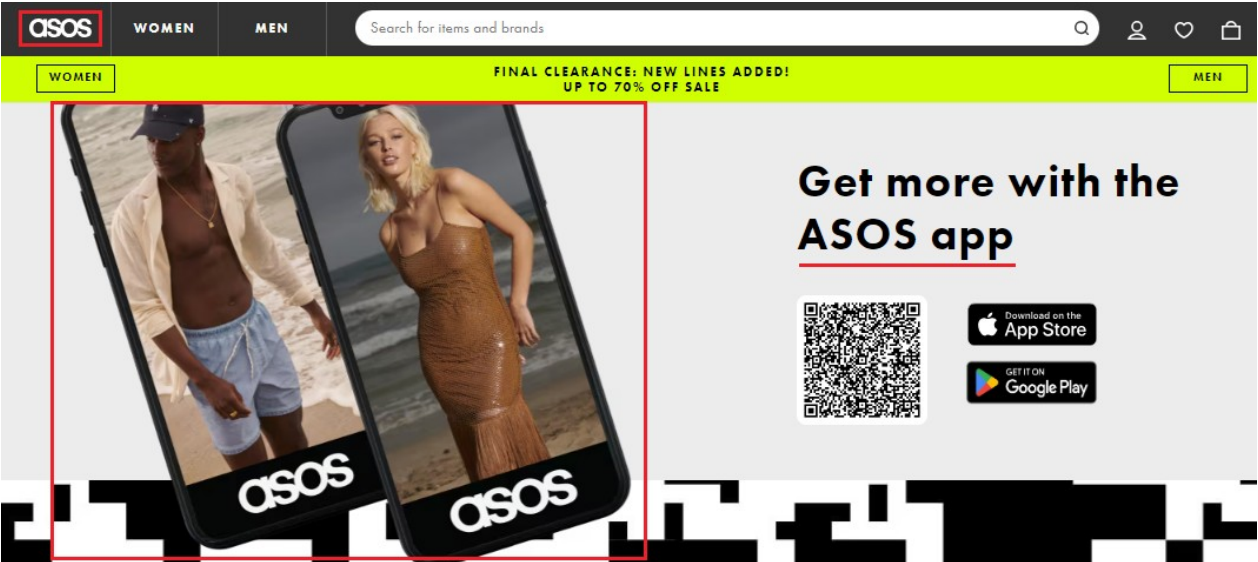
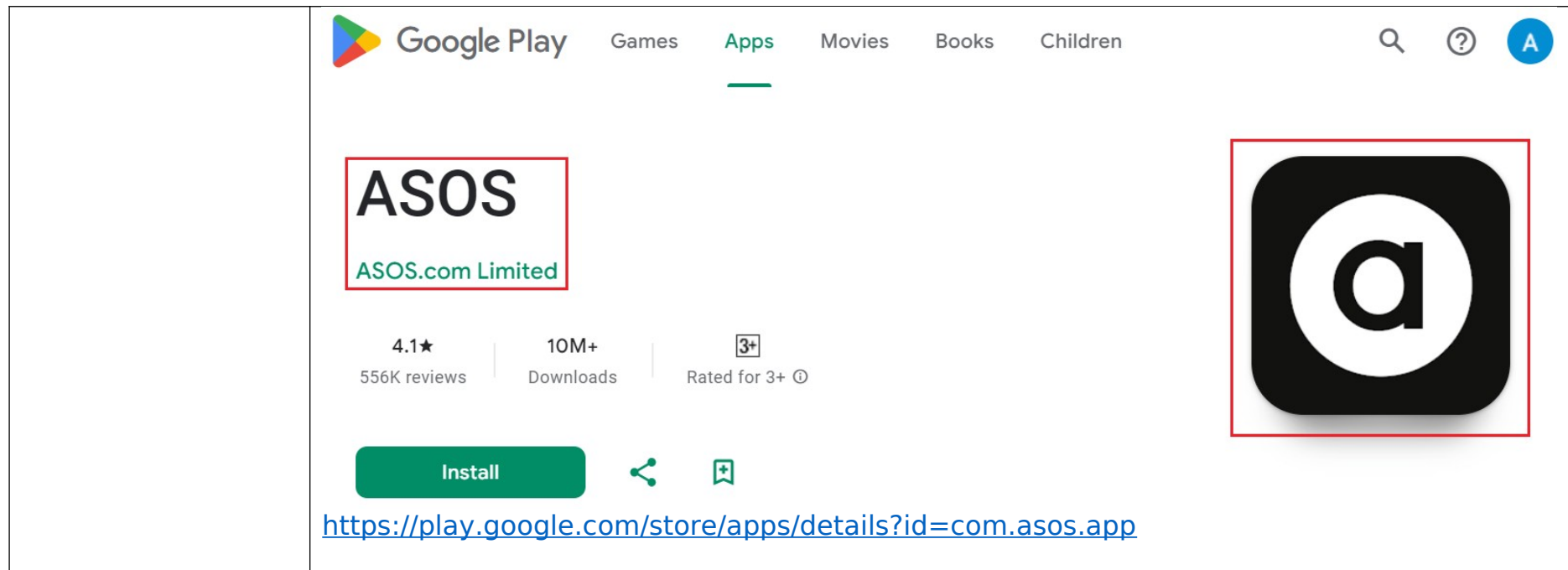


# Exhibit 2

Charted Claims:

Method Claims:1

| US8471812B2  | ASOS App (“Accused Instrumentality”)   |
|--|--|
| <p>1. A method for identifying an object, the method comprising:</p> | <p>The accused instrumentality utilizes a method for identifying (e.g., detecting and finding visually similar products) an object (e.g., footwear, apparel etc.).</p> <p>As shown below, the accused instrumentality, when enabled on a user’s smartphone, is used to detect, and identify objects such as footwear, apparel etc. in an image. The image is scanned via the smartphone’s camera. The accused instrumentality identifies different objects in the image by using machine learning. Once the objects are identified, similar products are searched from ASOS data. A list of these products is then presented to the user to view and buy.</p>  <p><a href="https://www.asos.com/us/discover/our-apps/">https://www.asos.com/us/discover/our-apps/</a></p> |



## **How can I find a specific product or brand?**

ASOS offers thousands of products on our website with new items being added every single day. If you're looking for a specific product or brand here are some ways to find it.

### **Step 1: Use the search bar**

If you're searching for a product you'll need to go back to our Home page and use the search bar at the top of the page. The search bar on our Help pages is only for Help page answers.

### **Step 2: Browse by Category**

You can also browse each category of product using the Men and Women tabs at the top of this page. Just hover over them and you can select the type of items you want to look at.

### **Step 3: Try Style Match**

You could also try Style Match on the ASOS app, which will **help you find something similar to the item you're looking for.** Go to the search bar and tap the camera icon – from here, you can upload a picture from your photo library or snap a photo. We'll then show you a variety of similar items instantly.

<https://www.asos.com/us/customer-care/product-stock/how-can-i-find-a-specific-product-or-brand/>

## How does your Style Match feature work?

Style match is a **visual search tool**, where you can find products on our app with one quick tap. All you need to do is upload a picture from your photo library or snap a picture and we'll do the rest. We'll help you find the product in the picture, or recommend something similar.

### **Step 1: Click the camera icon**

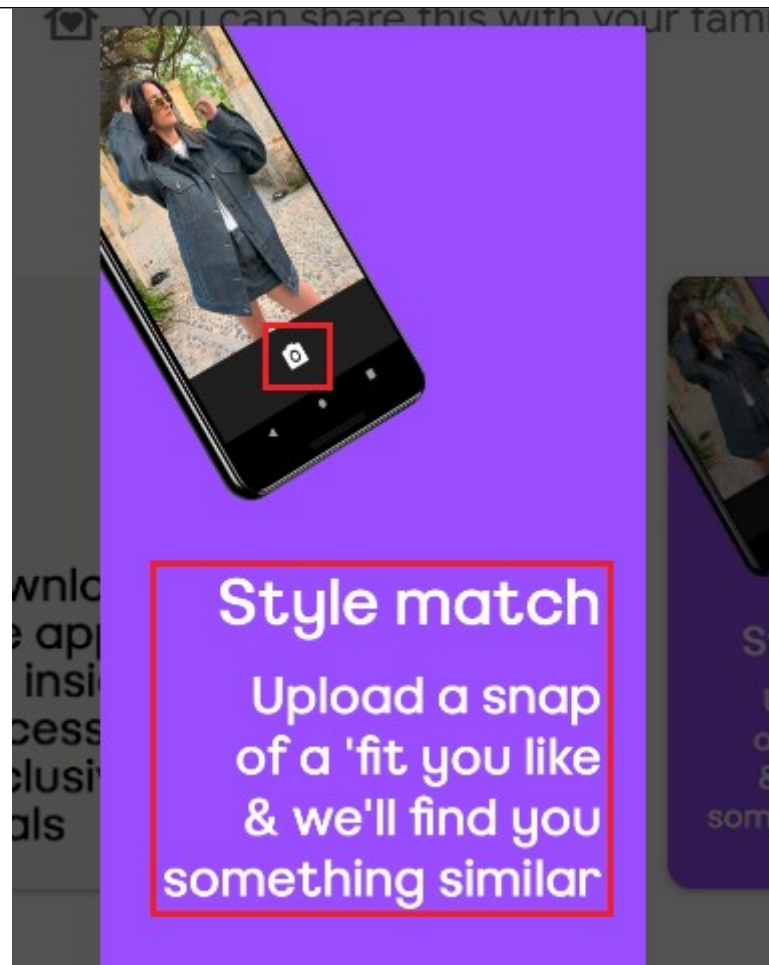
To use Style Match in the ASOS App, just tap the camera icon in the search bar – from there, you can **take a photo or upload one** from your photo library.

### **Step 2: See your recommended items**

Your recommended products will then be shown to you instantly. We don't store the image, and it won't show in your image gallery. We just **analyse the information from the image**, such as colour, pattern and type of clothing so that we can make recommendations to you.

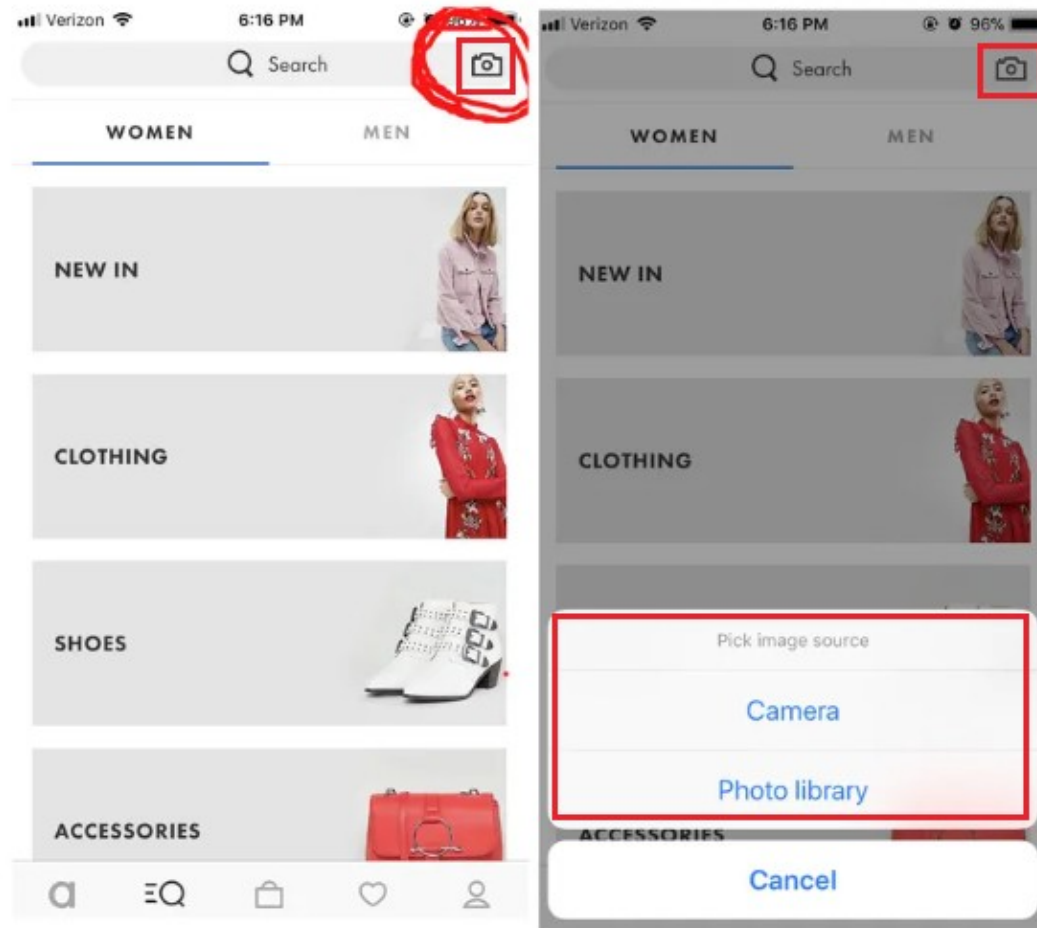
Style Match is available on the iOS and Android ASOS App.

<https://www.asos.com/us/customer-care/product-stock/how-does-your-style-match-feature-work/>

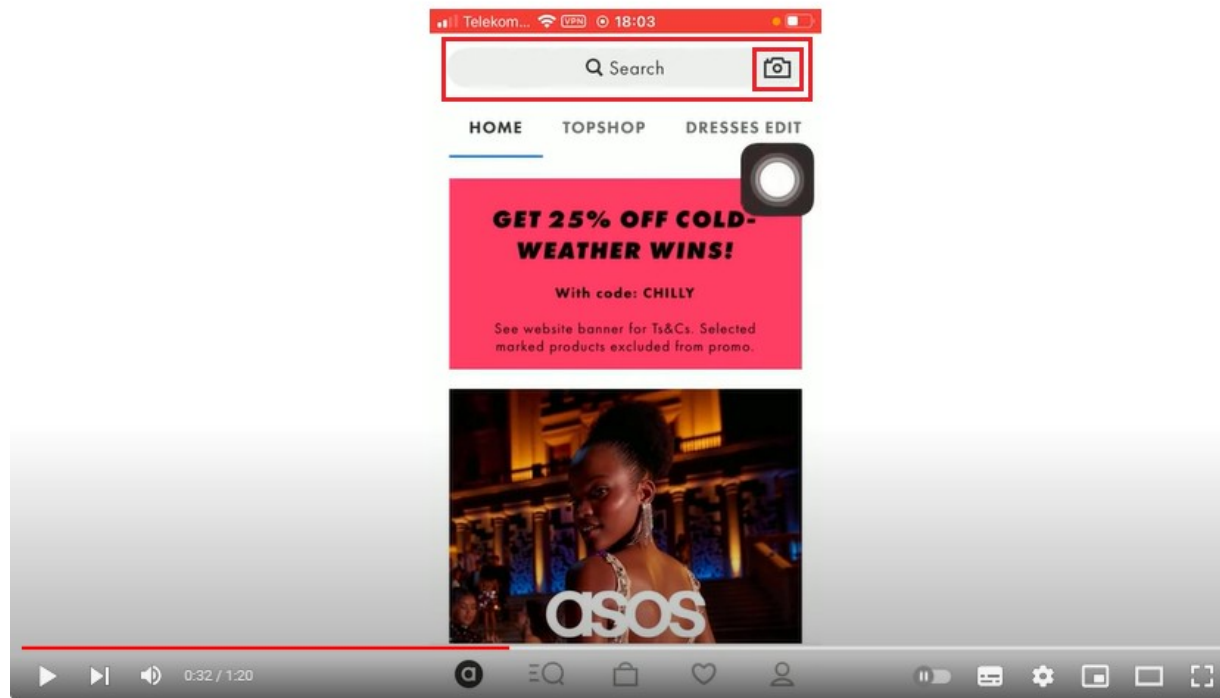


<https://play.google.com/store/apps/details?id=com.asos.app>

Here's how to use it: On the ASOS app, tap the camera icon next to the search bar, then use your camera to take a photo or choose one from your camera roll.

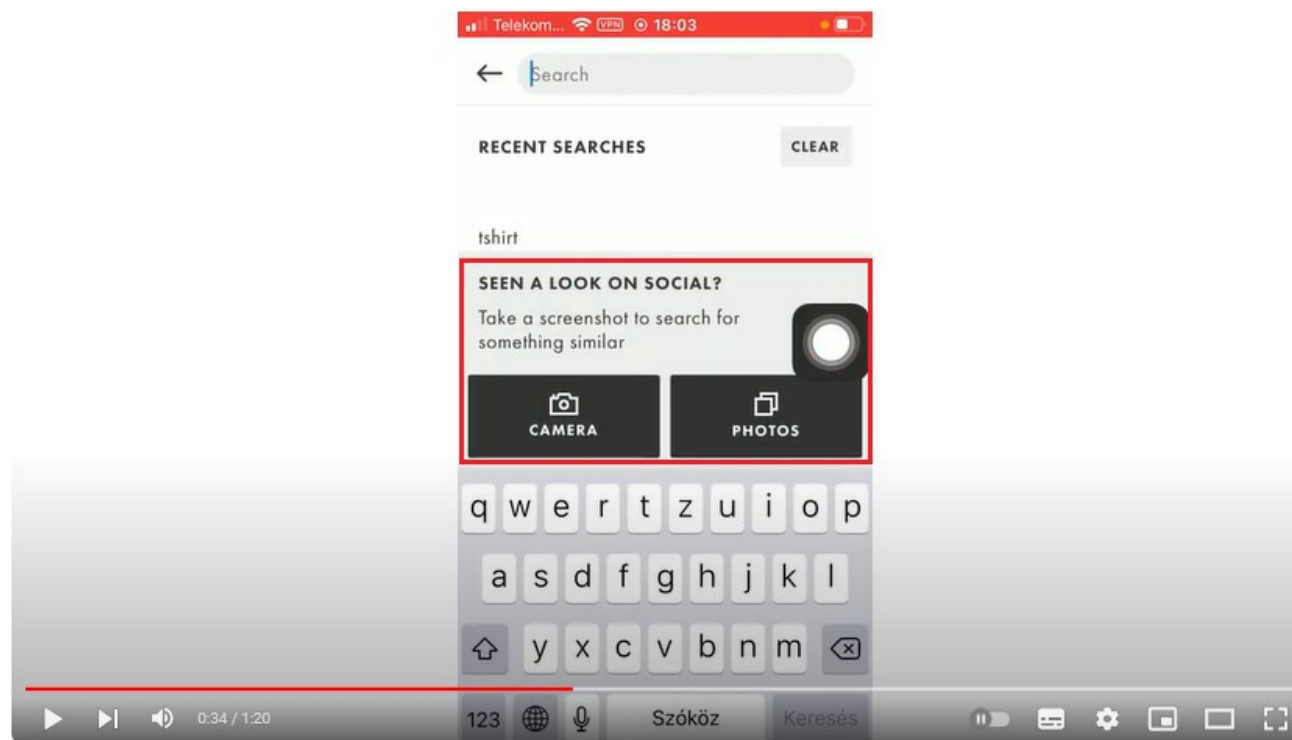


<https://www.racked.com/2018/3/9/17097160/asos-style-match-visual-search>



<https://www.youtube.com/watch?v=fadydleDA>





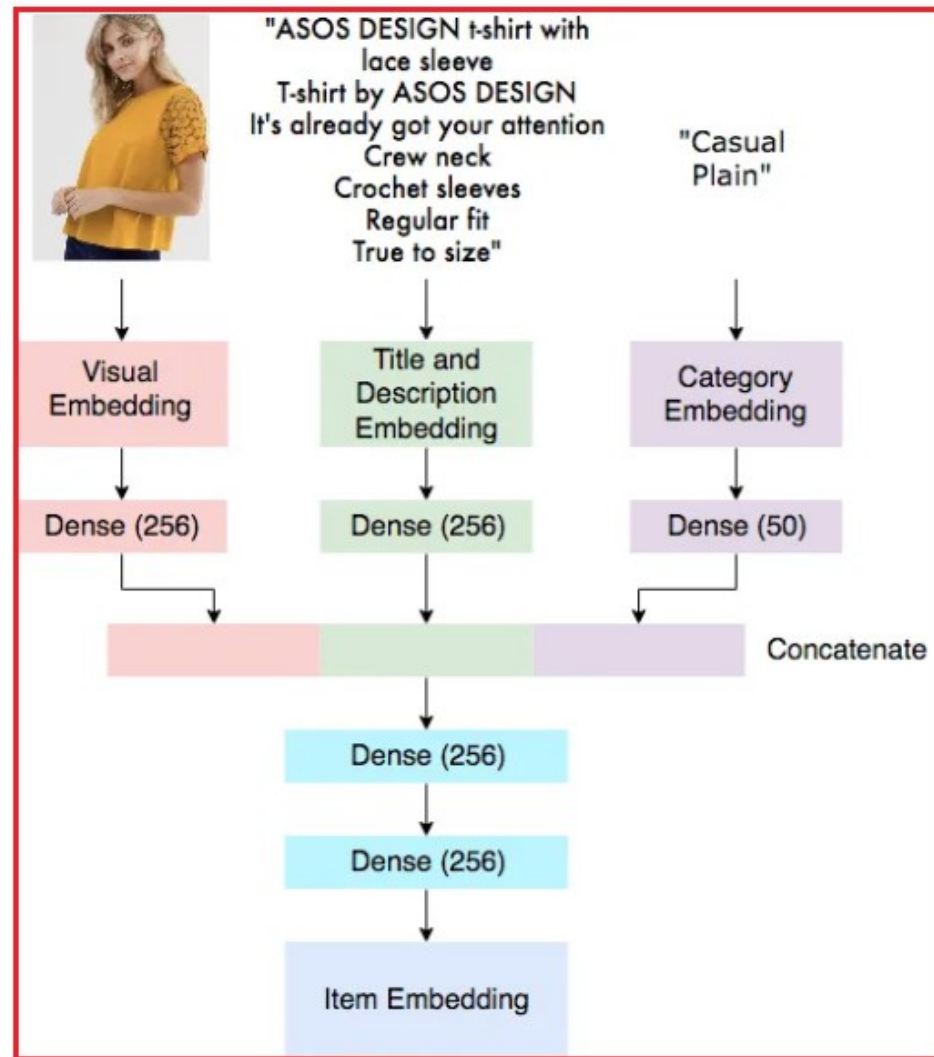
How to search for a product by uploading an image of it on ASOS?

We developed a machine learning model which is capable of completing an outfit based on a given seed product. Here we give an overview of our model and some of the challenges we faced.

We consider an outfit to be a set of fashion items which match stylistically and can be worn together. In order for the outfit to work, each item must be compatible with all other items. Our aim is to create a model which embeds each item in a latent *style space* such that for any two items the dot product (a measure of similarity) of their embeddings reflects their compatibility.

We use a deep neural network to learn embeddings for each item. All products in our ASOS catalogue have associated images, text descriptions and categorical attribute data and our neural network combines information from each of these sources to create the item embeddings.

<https://medium.com/asos-techblog/automated-outfit-generation-with-deep-learning-8f0eacc0ea86>



Architecture of the item embedder network

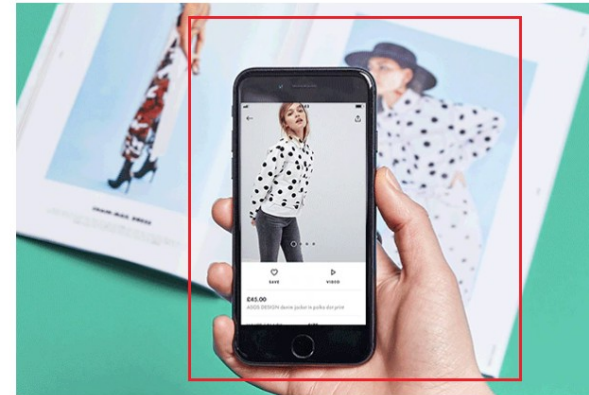
<https://medium.com/asos-techblog/automated-outfit-generation-with-deep-learning-8f0eacc0ea86>

### Style Match

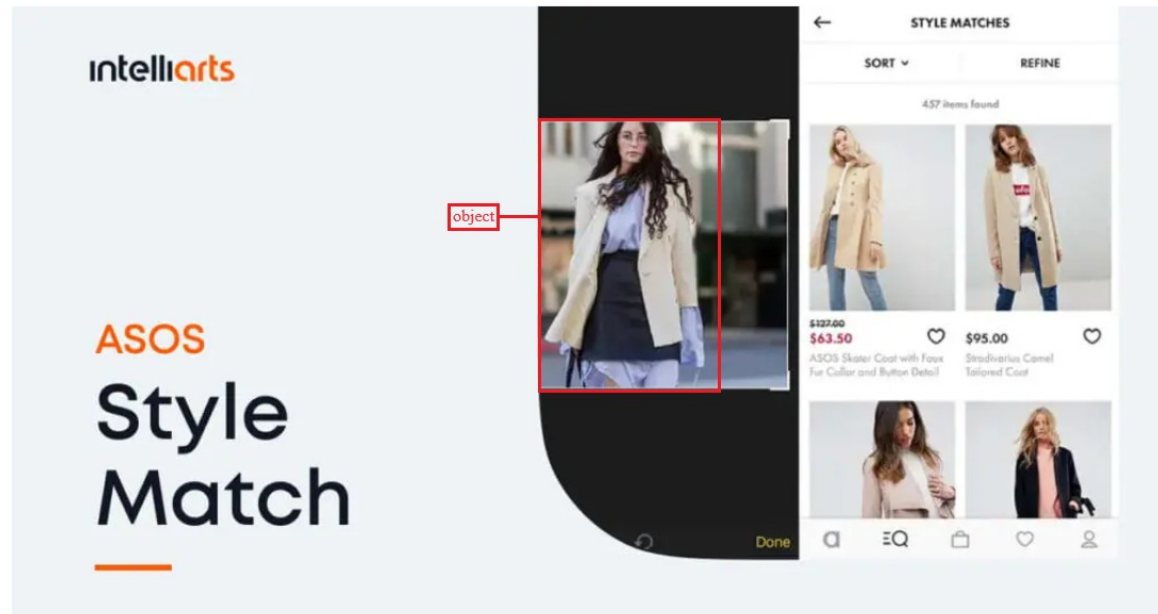
Whether inspired by a look in a magazine or a friend's vibe, you can now find similar pieces faster and easier than ever before with our photo search technology. Snap or upload an image and Style Match searches all our products to show you the closest things. Plus, it's really fun.

GET THE ANDROID APP NOW

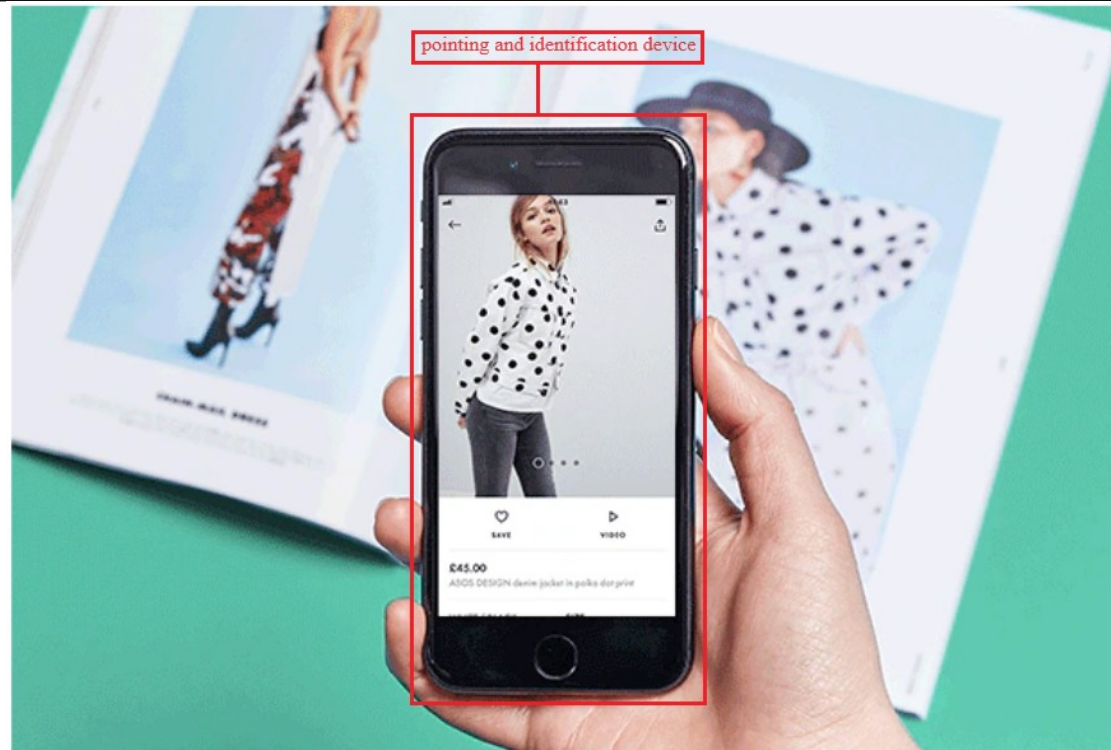
GET THE IOS APP NOW



<https://www.asos.com/us/about/asos-experience/>



|  |  |
|--|--|
|  | <a href="https://intelliarts.com/blog/visual-search-ecommerce/">https://intelliarts.com/blog/visual-search-ecommerce/</a>  |
| (a) providing a pointing and identification device for pointing at the object, | <p>The accused instrumentality utilizes a pointing and identification device (e.g., smartphone with accused instrumentality enabled on it) for pointing at the object (e.g., footwear, apparel etc.).</p> <p>As shown below, the accused instrumentality is enabled on a user's smartphone. The smartphone is then used to point-to and scan objects for identification by the accused instrumentality. After enabling the accused instrumentality on a smartphone, a user log's in to the accused instrumentality, and clicks on camera icon in search bar. The user scans a new object image. This image is used by the accused instrumentality to search across ASOS database to identify and present similar products to the user.</p> |

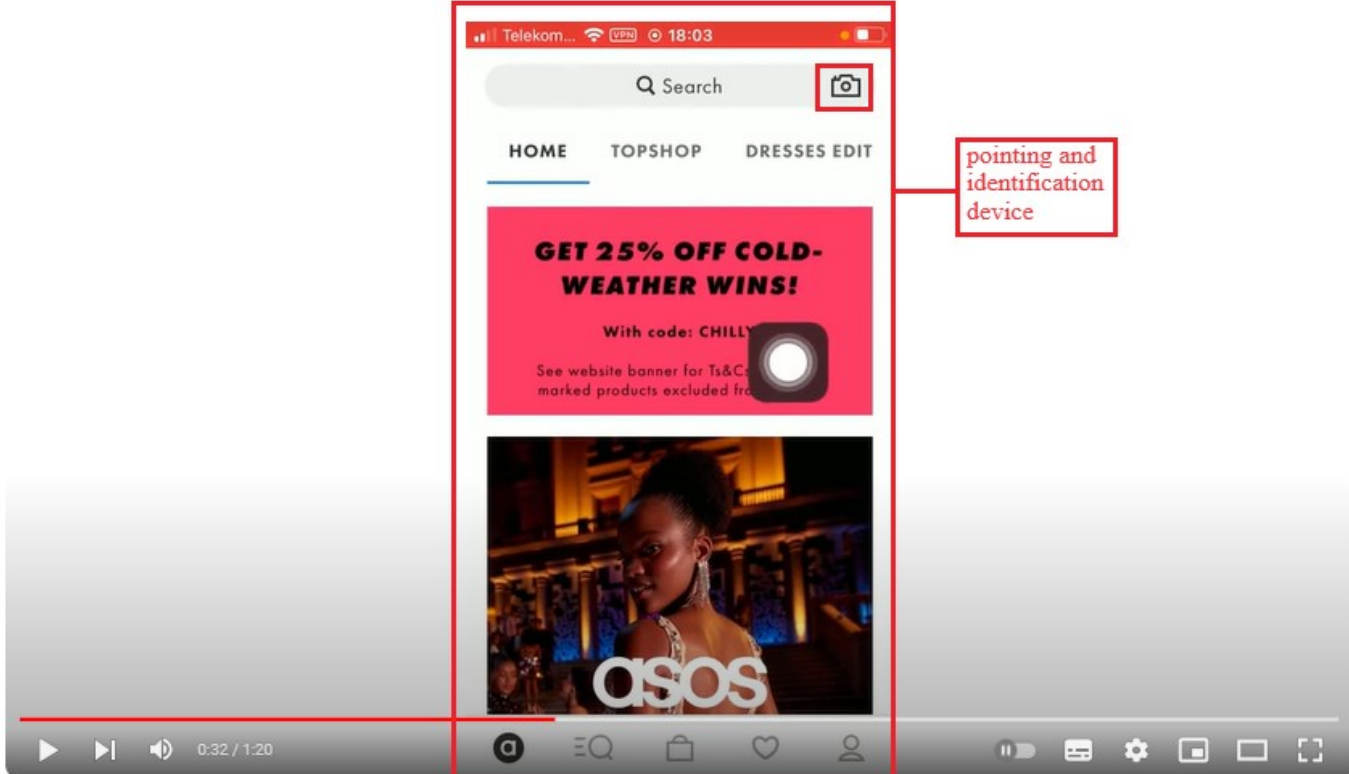


<https://www.asos.com/us/about/asos-experience/>



<https://apps.apple.com/us/app/asos-discover-fashion-online/id457876088>





The screenshot displays a YouTube video player. The video content shows a mobile application interface for ASOS. A red rectangular box highlights a specific feature in the app: a search bar with a camera icon to its right. A red line points from a text box to this camera icon. Below the search bar, there is a promotional banner for a 25% discount and a video thumbnail featuring a woman in a white dress with the ASOS logo. The video player controls at the bottom show a progress bar at 0:32 / 1:20. Below the video, the title "How to search for a product by uploading an image of it on ASOS?" is visible, along with the channel name "Just Ask Me" (29.4K subscribers) and a "Subscribe" button. Interaction buttons for likes, shares, downloads, and thanks are also present.

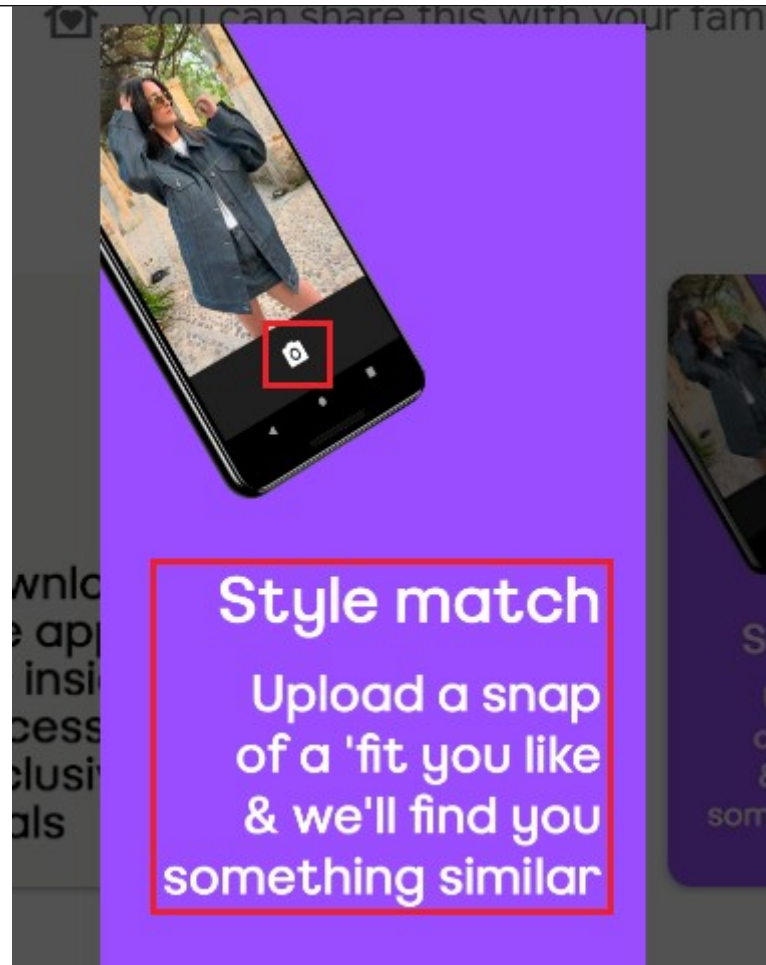
pointing and identification device

How to search for a product by uploading an image of it on ASOS?

Just Ask Me  
29.4K subscribers

<https://www.youtube.com/watch?v=fadydleDA>



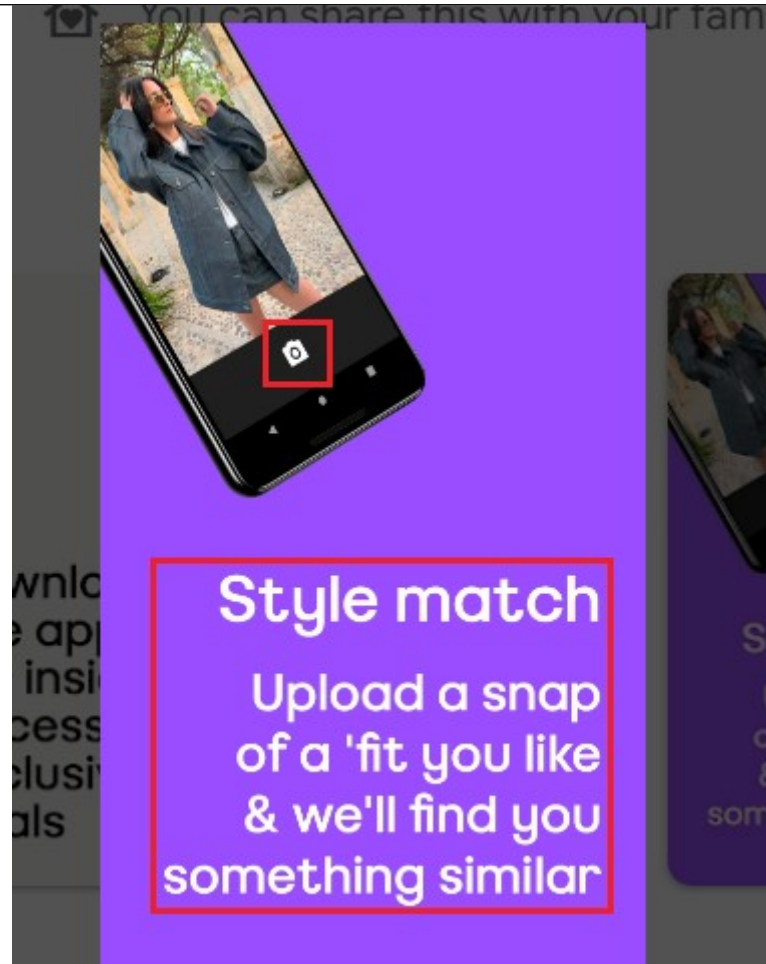


<https://play.google.com/store/apps/details?id=com.asos.app>

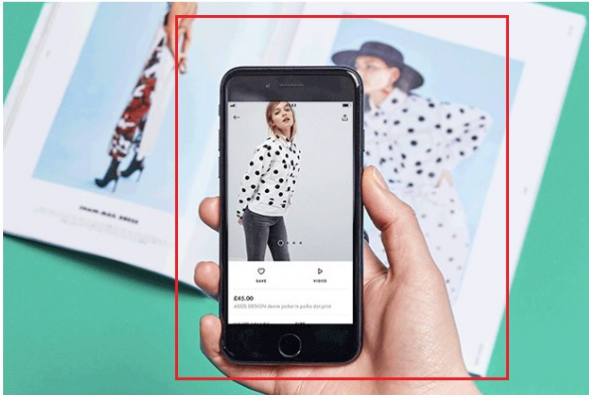
|  |   |
|--|---|
|  | <p style="text-align: center;"><b>How does your Style Match feature work?</b></p> <p>Style match is a <b>visual search tool</b>, where you can find products on our app with one quick tap. All you need to do is upload a picture from your photo library or <u>snap a picture and we'll do the rest.</u> We'll help you find the product in the picture, or recommend something similar.</p> <p><b><u>Step 1: Click the camera icon</u></b><br/> To use Style Match in the ASOS App, just tap the camera icon in the search bar – from there, you can <b><u>take a photo or upload one</u></b> from your photo library.</p> <p><b><u>Step 2: See your recommended items</u></b><br/> Your recommended products will then be shown to you instantly. We don't store the image, and it won't show in your image gallery. We just <b><u>analyse the information from the image</u></b>, such as colour, pattern and type of clothing so that we can make recommendations to you.</p> <p>Style Match is available on the iOS and Android ASOS App.</p> <p><a href="https://www.asos.com/us/customer-care/product-stock/how-does-your-style-match-feature-work/">https://www.asos.com/us/customer-care/product-stock/how-does-your-style-match-feature-work/</a></p> <p><b>GLOBAL REACH</b></p> <p><u>ASOS Marketplace's global presence allows fashion enthusiasts from all corners of the world to access and purchase unique items from independent boutiques and sellers.</u> This international footprint brings together diverse styles, making it a go-to destination for global fashionistas.</p> <p><a href="https://www.getvendo.com/b/asos-multi-vendor-marketplace-success">https://www.getvendo.com/b/asos-multi-vendor-marketplace-success</a></p> |
| the pointing and identification device | The accused instrumentality utilizes the pointing and identification device (e.g., smartphone with accused instrumentality enabled on it) comprising: at least one actuation  |

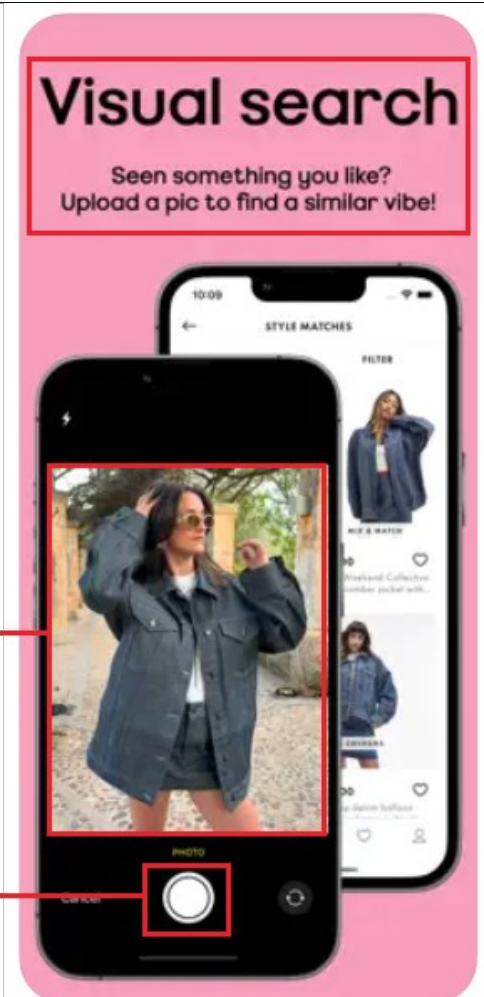
|  |   |
|--|---|
| <p>comprising: at least one actuation means for actuation by the user when the user points the pointing and identification device at the object;</p> | <p>means (e.g., search button to capture and search for an object) for actuation by the user (e.g., click by the user) when the user points the pointing and identification device (e.g., smartphone with accused instrumentality enabled on it) at the object (e.g., footwear, apparel etc.).</p> <p>As shown below, when a user points a smartphone (with accused instrumentality installed on it), at an object (such as footwear), and clicks on a search button, an image of the pointed-at object is clicked. The object is then identified by the accused instrumentality (by using machine learning) and searched across ASOS database. Similar products are then identified and presented to the user.</p> |
|--|---|





<https://play.google.com/store/apps/details?id=com.asos.app>

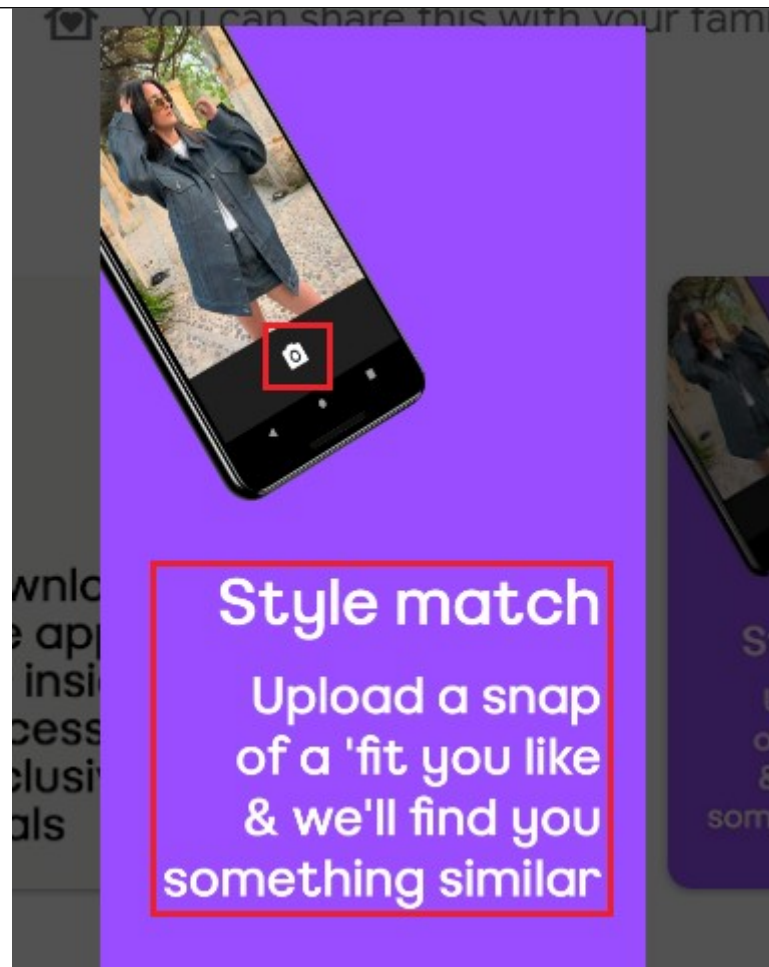
|  |  |
|--|--|
|  | <p style="text-align: center;"><b><u>Style Match</u></b></p> <p>Whether inspired by a look in a magazine or a friend's vibe, you can now find similar pieces faster and easier than ever before with our <u>photo search technology</u>. Snap or upload an image and Style Match searches all our products to show you the closest things. Plus, it's really fun.</p> <div style="text-align: center;"> <p>GET THE ANDROID APP NOW</p> <p>GET THE IOS APP NOW</p> </div>  <p><a href="https://www.asos.com/us/about/asos-experience/">https://www.asos.com/us/about/asos-experience/</a></p>  |
| <p>a digital camera for forming a digital image of the object or of a portion of the object when the user points the pointing and identification device at the object and actuates the at least one actuation means;</p> | <p>The accused instrumentality utilizes a digital camera (e.g., camera of the smartphone) for forming a digital image (e.g., image captured by the camera) of the object (e.g., footwear, apparel etc.) or of a portion of the object when the user points the pointing and identification device (e.g., smartphone with accused instrumentality enabled on it) at the object (e.g., footwear, apparel etc.) and actuates the at least one actuation means (e.g., search button to capture and search for an object).</p> <p>As shown below, when a user points a smartphone (with accused instrumentality installed on it), at an object (such as footwear), and clicks on a search button, an image of the pointed-at object is clicked. The object is then identified by the accused application (by using machine learning) and searched across ASOS database. Similar products are then identified and presented to the user.</p> |



digital image

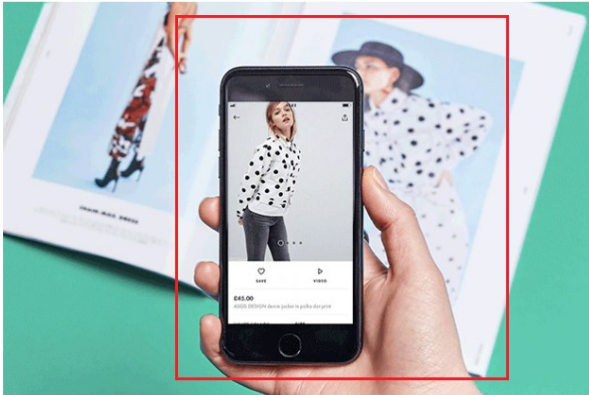
actuation means

<https://apps.apple.com/us/app/asos-discover-fashion-online/id457876088>



<https://play.google.com/store/apps/details?id=com.asos.app>



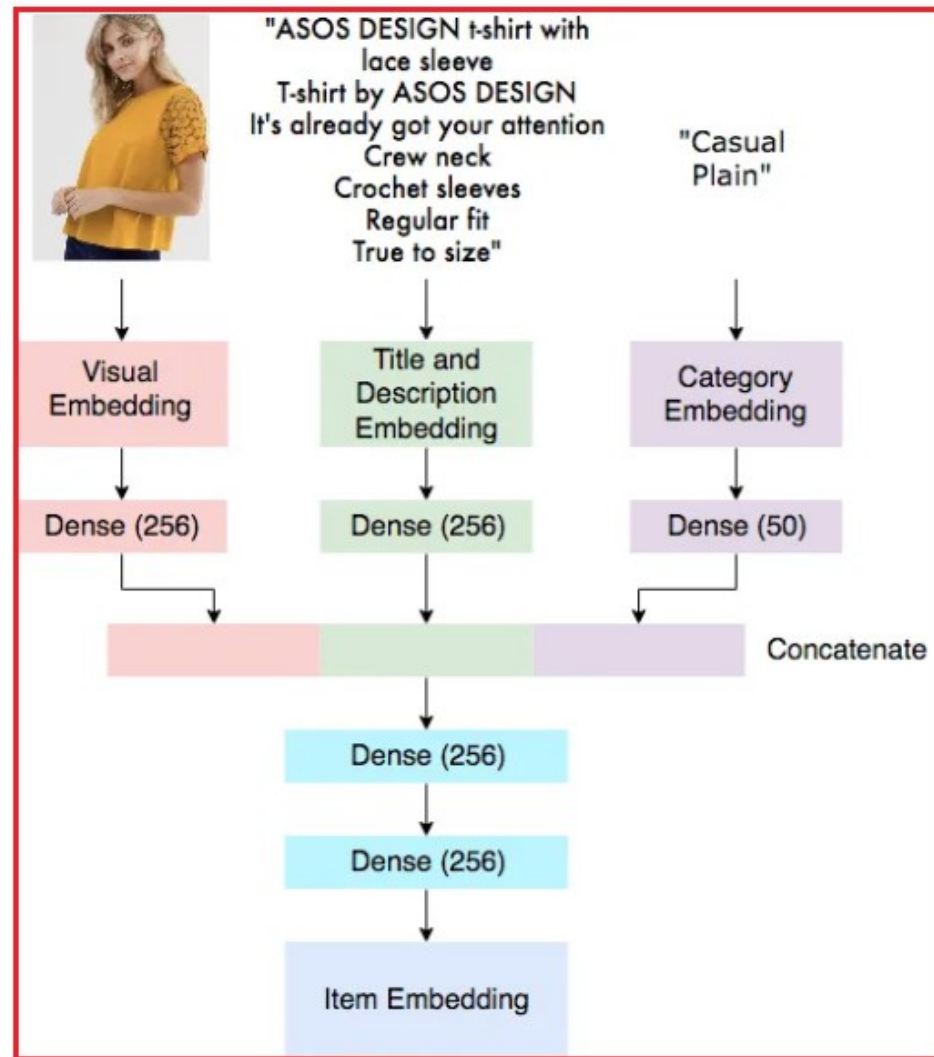
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|--|---|
|  | <p style="text-align: center;"><b><u>Style Match</u></b></p> <p>Whether inspired by a look in a magazine or a friend's vibe, you can now find similar pieces faster and easier than ever before with our <u>photo search technology</u>. Snap or upload an image and Style Match searches all our products to show you the closest things. Plus, it's really fun.</p> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 5px; margin: 5px;">GET THE ANDROID APP NOW</div> <div style="border: 1px solid black; padding: 5px; margin: 5px;">GET THE IOS APP NOW</div> </div>  <p><a href="https://www.asos.com/us/about/asos-experience/">https://www.asos.com/us/about/asos-experience/</a></p>   |
| <p>and a communication device for communicating the digital image to a different location when the user actuates the at least one actuation means;</p> | <p>The accused instrumentality utilizes a communication device (e.g., wireless communication module and associated processor of the smartphone) for communicating the digital image (e.g., image captured by the camera) to a different location (e.g., location of ASOS database) when the user actuates the at least one actuation means (e.g., search button to capture and search for an object).</p> <p>As shown below, the accused instrumentality is enabled on a user's smartphone. The smartphone is then used to point-to and scan objects for identification by the accused instrumentality. After enabling the accused instrumentality on the smartphone, a user log's in to the accused instrumentality, and clicks on camera icon in search bar. The user scans a new object image. This image is searched by the accused instrumentality across ASOS Database, (from ASOS database), to identify and present similar products to the user.</p> |

We developed a machine learning model which is capable of completing an outfit based on a given *seed product*. Here we give an overview of our model and some of the challenges we faced.

We consider an outfit to be a set of fashion items which match stylistically and can be worn together. In order for the outfit to work, each item must be compatible with all other items. Our aim is to create a model which embeds each item in a latent *style space* such that for any two items the dot product (a measure of similarity) of their embeddings reflects their compatibility.

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<https://medium.com/asos-techblog/automated-outfit-generation-with-deep-learning-8f0eacc0ea86>



Architecture of the item embedder network

<https://medium.com/asos-techblog/automated-outfit-generation-with-deep-learning-8f0eacc0ea86>

A camera icon has been added to the search bar, which can be tapped to upload a picture on the application to trigger an image search. The application will search its portfolio of 85,000 items that are available on the website to find the best match for the picture uploaded by the user.

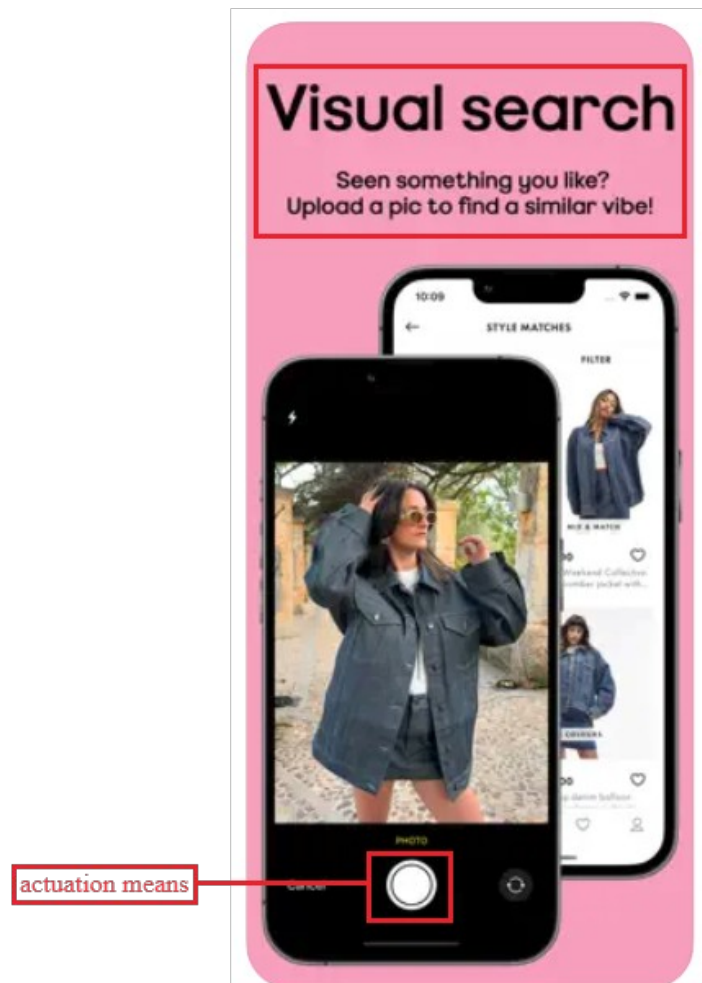
The new tool adopts the 'build-measure-learn' approach to innovation, said the company in a press release. The technology is still in its initial phase and will be improved with the help of machine learning and big data in the future.

<https://us.fashionnetwork.com/news/Asos-app-now-features-visual-search-tool,858000.html>

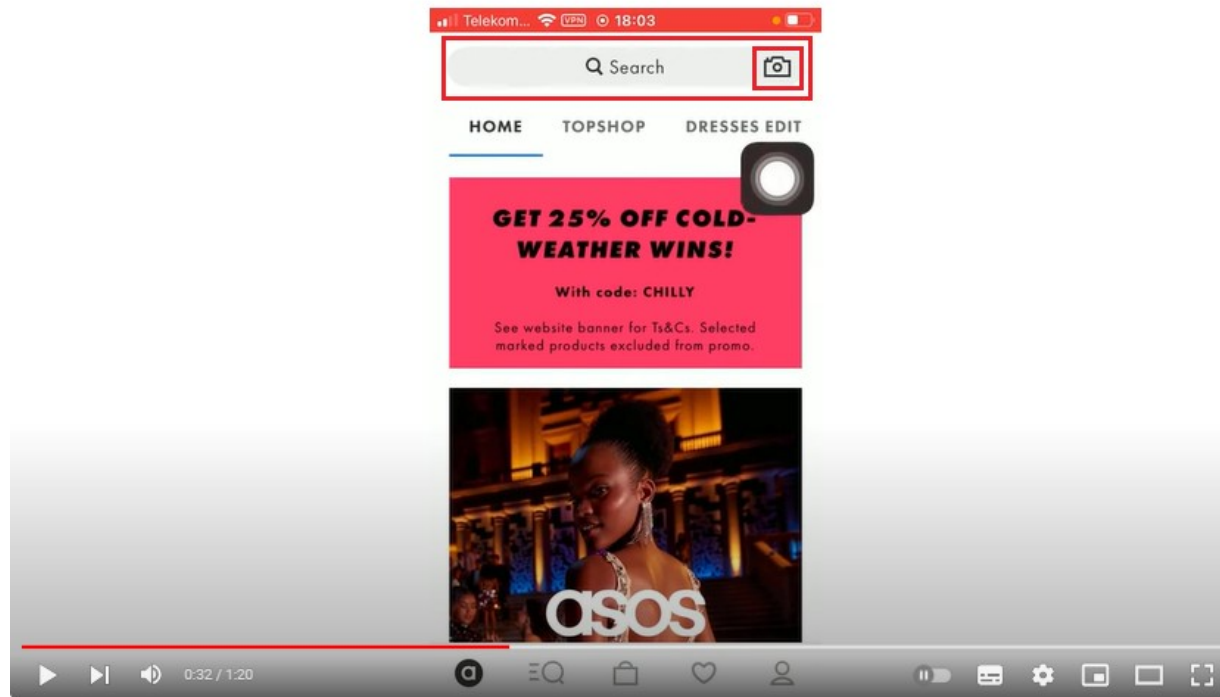
## **GLOBAL REACH**

ASOS Marketplace's global presence allows fashion enthusiasts from all corners of the world to access and purchase unique items from independent boutiques and sellers. This international footprint brings together diverse styles, making it a go-to destination for global fashionistas.

<https://www.getvendo.com/b/asos-multi-vendor-marketplace-success>



<https://apps.apple.com/us/app/asos-discover-fashion-online/id457876088>



<https://www.youtube.com/watch?v=fadydleDA>

(b) communicating the digital image to the different location;

The accused instrumentality practices communicating the digital image (e.g., image captured by the camera) to the different location (e.g., location of ASOS database).

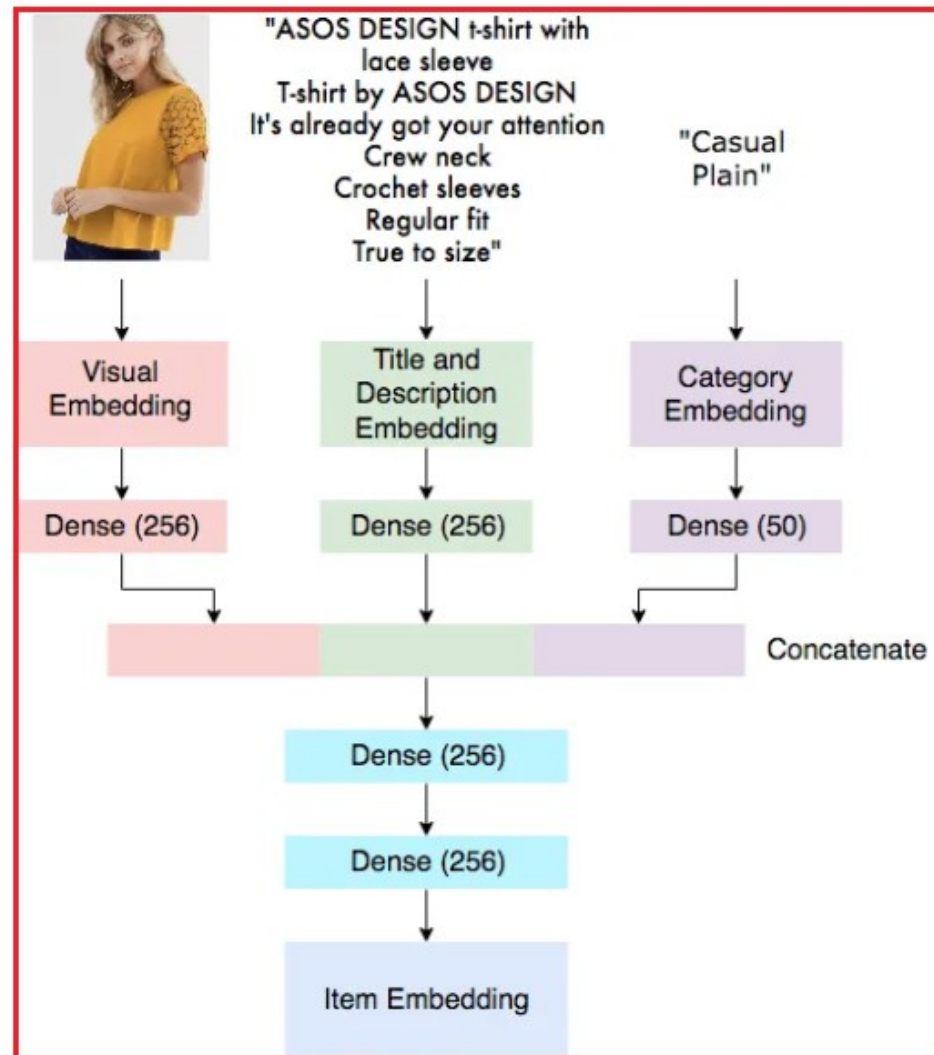
As shown below, when a user log's in to the accused instrumentality, installed on the user's smartphone, and searches for a product using the accused instrumentality's visual search feature, by scanning a new object, a digital image is taken. This image is then used by the accused instrumentality to search across ASOS database (from ASOS database). Similar products are then identified and presented to the user.

|   |  |
|---|--|
|   | <p><u>A camera icon has been added to the search bar, which can be tapped to upload a picture on the application to trigger an image search. The application will search its portfolio of 85,000 items that are available on the website to find the best match for the picture uploaded by the user.</u></p> <p>The new tool adopts the ‘build-measure-learn’ approach to innovation, said the company in a press release. <u>The technology is still in its initial phase and will be improved with the help of machine learning and <u>big data</u> in the future.</u></p> <p><a href="https://us.fashionnetwork.com/news/Asos-app-now-features-visual-search-tool,858000.html">https://us.fashionnetwork.com/news/Asos-app-now-features-visual-search-tool,858000.html</a></p> <p><b>GLOBAL REACH</b></p> <p><u>ASOS Marketplace's global presence allows fashion enthusiasts from all corners of the world to access and purchase unique items from independent boutiques and sellers.</u> This international footprint brings together diverse styles, making it a go-to destination for global fashionistas.</p> <p><a href="https://www.getvendo.com/b/asos-multi-vendor-marketplace-success">https://www.getvendo.com/b/asos-multi-vendor-marketplace-success</a></p> |
| (c) automatically identifying a list of likely pointed-to objects from the digital image at the different location to | <p>The accused instrumentality practices automatically identifying a list of likely pointed-to objects (e.g., objects similar to the objects identified in an image) from the digital image (e.g., image captured by the camera) at the different location (e.g., ASOS database) to return the list of likely pointed-to objects (e.g., objects similar to the objects identified in an image).</p>  |



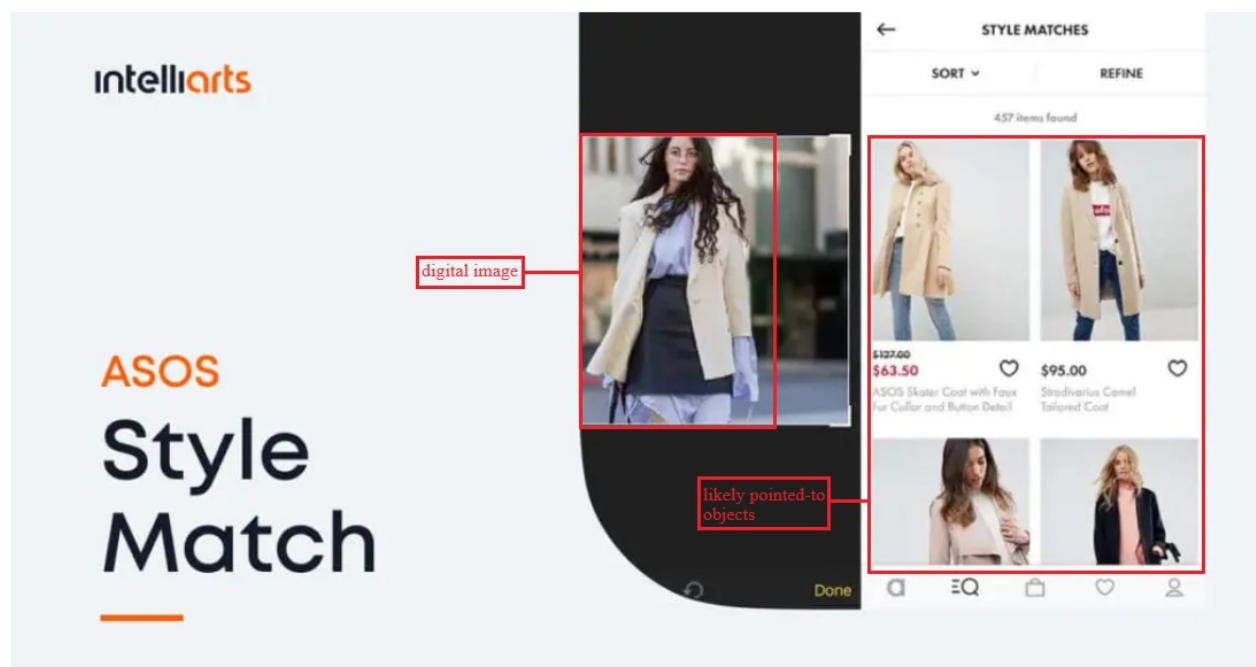
|  |   |
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| <p>return the list of likely pointed-to objects; and</p> | <p>As shown below, when a user log's in to the accused instrumentality, installed on the user's smartphone, and searches for a product using the accused instrumentality's visual search feature, by scanning a new object, a digital image of object is taken. This image is analysed using machine learning to identify the object in the image. The object is then searched by the accused instrumentality across ASOS database. Products similar to the object in the image, are identified from ASOS database, and presented to the user. The user can thereafter view and buy these products.</p> <p><u>We developed a machine learning model which is capable of completing an outfit based on a given <i>seed product</i>. Here we give an overview of our model and some of the challenges we faced.</u></p> <p>We consider an outfit to be a set of fashion items which match stylistically and can be worn together. In order for the outfit to work, each item must be compatible with all other items. Our aim is to create a model which embeds each item in a latent <i>style space</i> such that for any two items the dot product (a measure of similarity) of their embeddings reflects their compatibility.</p> <p><u>We use a deep neural network to learn embeddings for each item. All products in our ASOS catalogue have associated images, text descriptions and categorical attribute data and our neural network combines information from each of these sources to create the item embeddings.</u></p> <p><a href="https://medium.com/asos-techblog/automated-outfit-generation-with-deep-learning-8f0eacc0ea86">https://medium.com/asos-techblog/automated-outfit-generation-with-deep-learning-8f0eacc0ea86</a></p> |
|--|---|



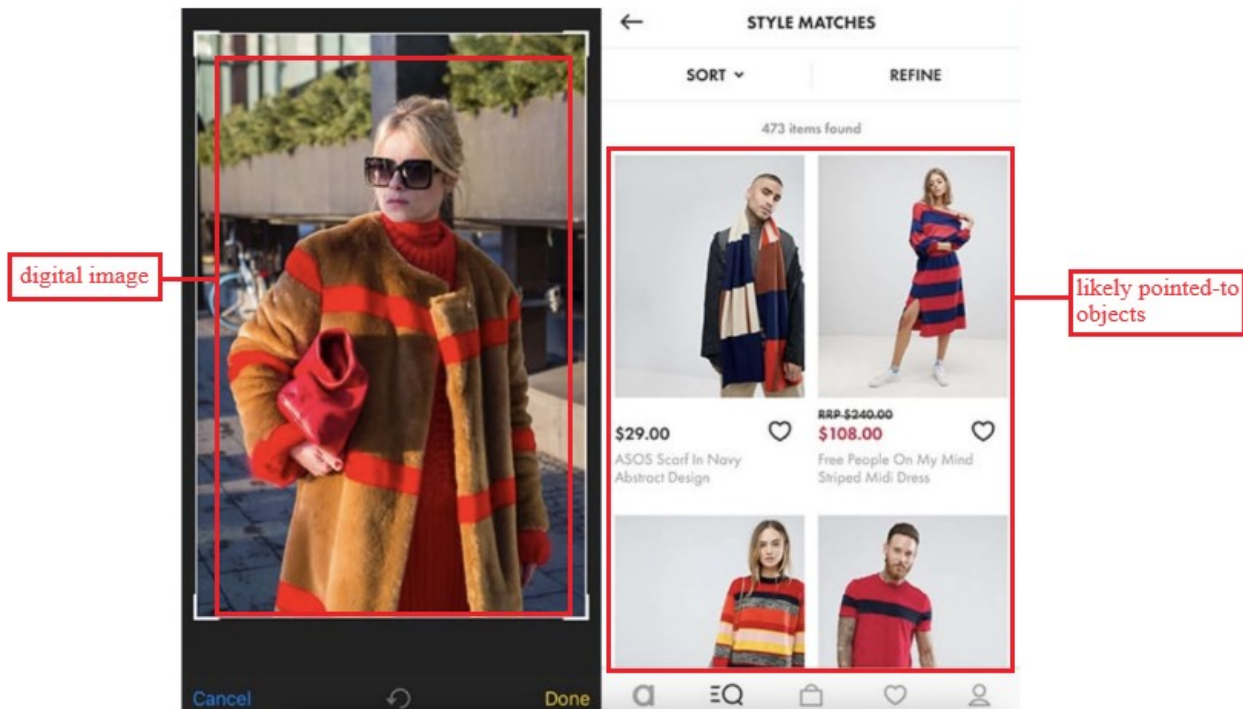


Architecture of the item embedder network

<https://medium.com/asos-techblog/automated-outfit-generation-with-deep-learning-8f0eacc0ea86>



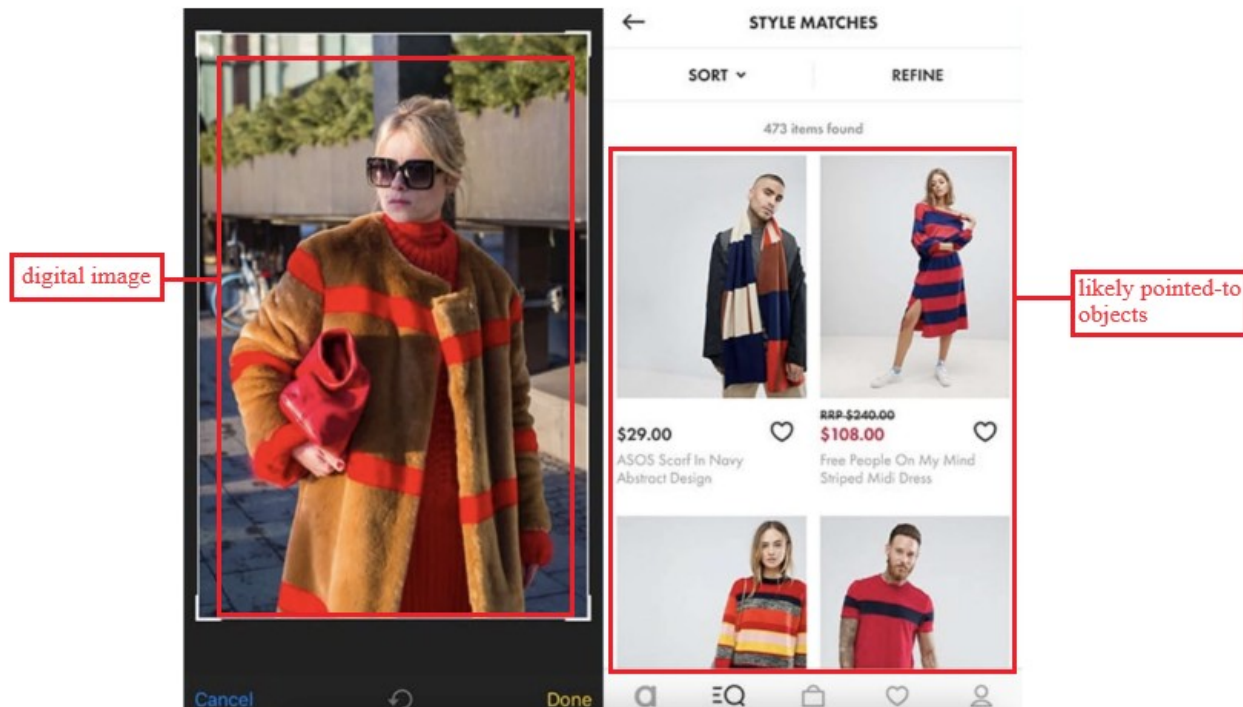
<https://intelliarts.com/blog/visual-search-ecommerce/>



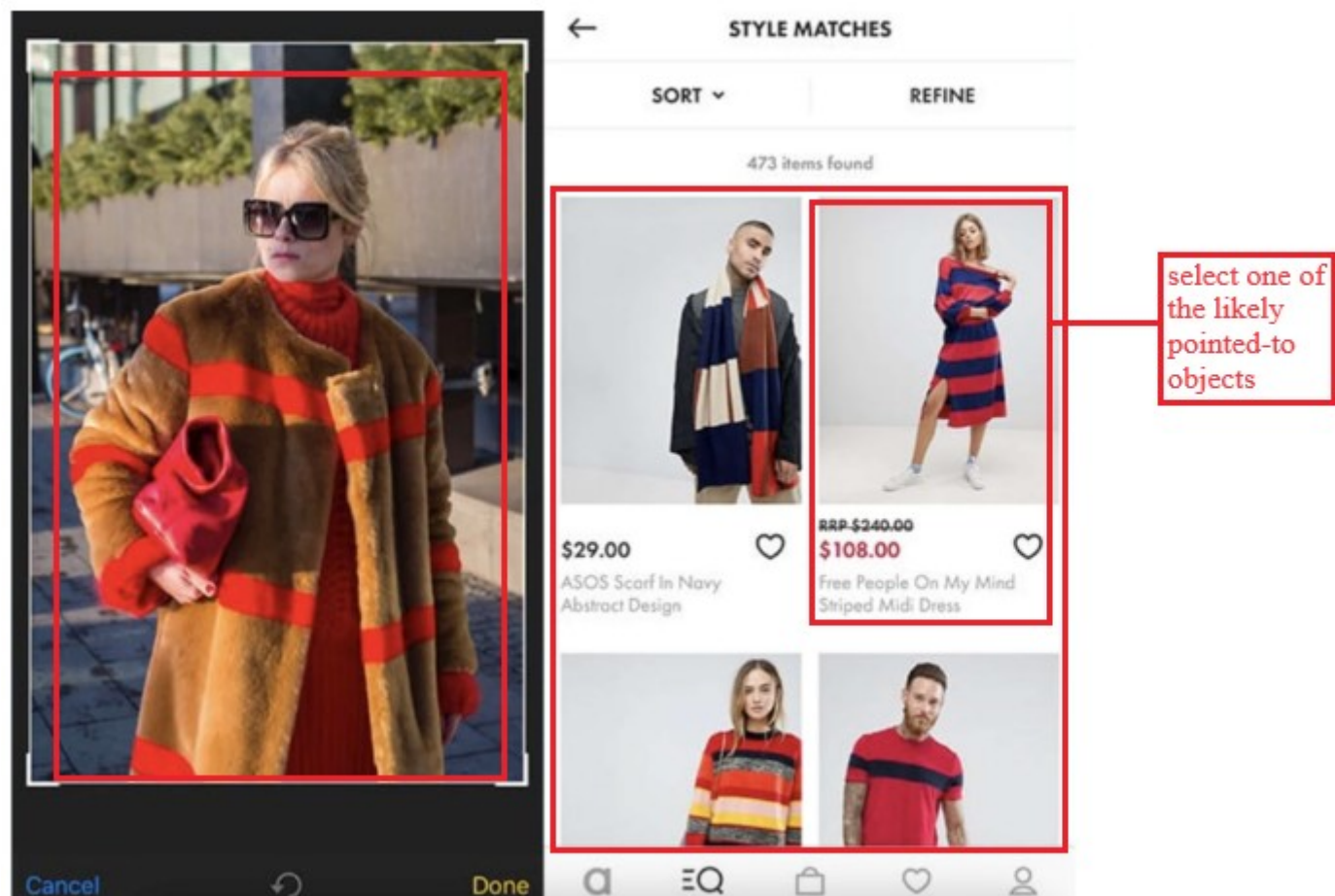
<https://postindustria.com/ai-clothing-detection-use-cases-for-fashion-and-e-commerce/>

|   |   |
|---|---|
|   | <p><u>A camera icon has been added to the search bar, which can be tapped to upload a picture on the application to trigger an image search. The application will search its portfolio of 85,000 items that are available on the website to find the best match for the picture uploaded by the user.</u></p> <p>The new tool adopts the ‘build-measure-learn’ approach to innovation, said the company in a press release. <u>The technology is still in its initial phase and will be improved with the help of machine learning and big data in the future.</u></p> <p><a href="https://us.fashionnetwork.com/news/Asos-app-now-features-visual-search-tool,858000.html">https://us.fashionnetwork.com/news/Asos-app-now-features-visual-search-tool,858000.html</a></p> <p><b>GLOBAL REACH</b></p> <p><u>ASOS Marketplace's global presence allows fashion enthusiasts from all corners of the world to access and purchase unique items from independent boutiques and sellers.</u> This international footprint brings together diverse styles, making it a go-to destination for global fashionistas.</p> <p><a href="https://www.getvendo.com/b/asos-multi-vendor-marketplace-success">https://www.getvendo.com/b/asos-multi-vendor-marketplace-success</a></p> |
| (d) returning the list of likely pointed-to objects to the user to select one of the likely pointed-to objects; | <p>The accused instrumentality practices returning the list of likely pointed-to objects (e.g., objects similar to the objects identified in an image) to the user to select one of the likely pointed-to objects (e.g., objects similar to the objects identified in an image).</p> <p>As shown below, when a user log's in to the accused instrumentality, installed on the user's smartphone, and searches for a product using the accused instrumentality's visual search feature, by scanning a new object, a digital image of object is taken. This image is</p>  |

analysed using machine learning to identify the object in the image. The object is then searched by the accused instrumentality across ASOS database. Products similar to the object in the image, are identified from ASOS database, and presented to the user. The user can thereafter view and buy these products.



<https://postindustria.com/ai-clothing-detection-use-cases-for-fashion-and-e-commerce/>



<https://postindustria.com/ai-clothing-detection-use-cases-for-fashion-and-e-commerce/>

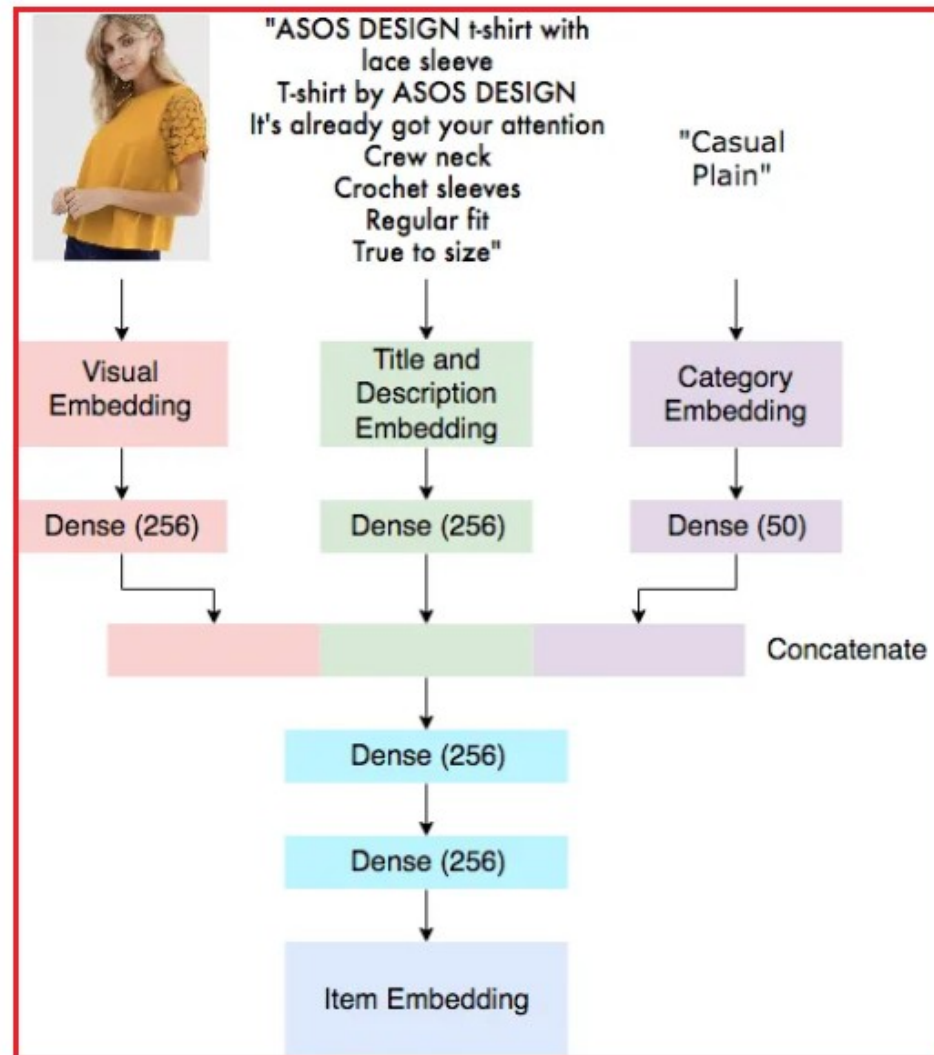


We developed a machine learning model which is capable of completing an outfit based on a given seed product. Here we give an overview of our model and some of the challenges we faced.

We consider an outfit to be a set of fashion items which match stylistically and can be worn together. In order for the outfit to work, each item must be compatible with all other items. Our aim is to create a model which embeds each item in a latent *style space* such that for any two items the dot product (a measure of similarity) of their embeddings reflects their compatibility.

We use a deep neural network to learn embeddings for each item. All products in our ASOS catalogue have associated images, text descriptions and categorical attribute data and our neural network combines information from each of these sources to create the item embeddings.

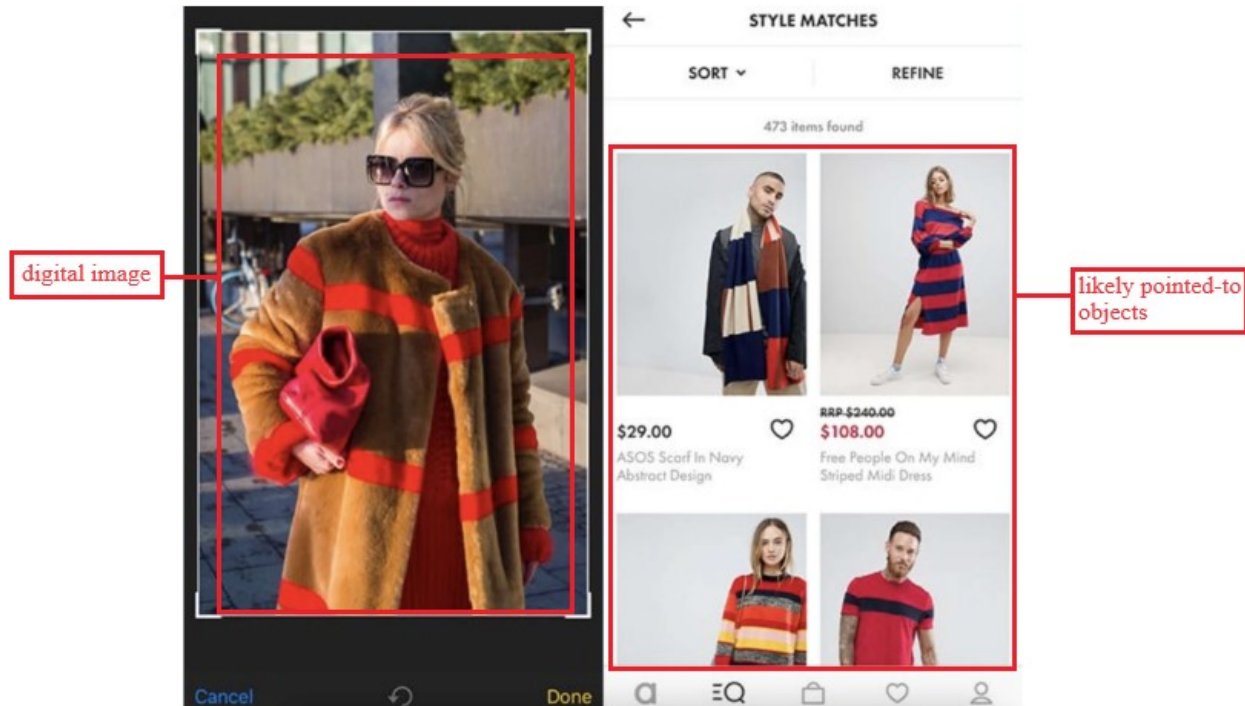
<https://medium.com/asos-techblog/automated-outfit-generation-with-deep-learning-8f0eacc0ea86>



Architecture of the item embedder network

<https://medium.com/asos-techblog/automated-outfit-generation-with-deep-learning-8f0eacc0ea86>



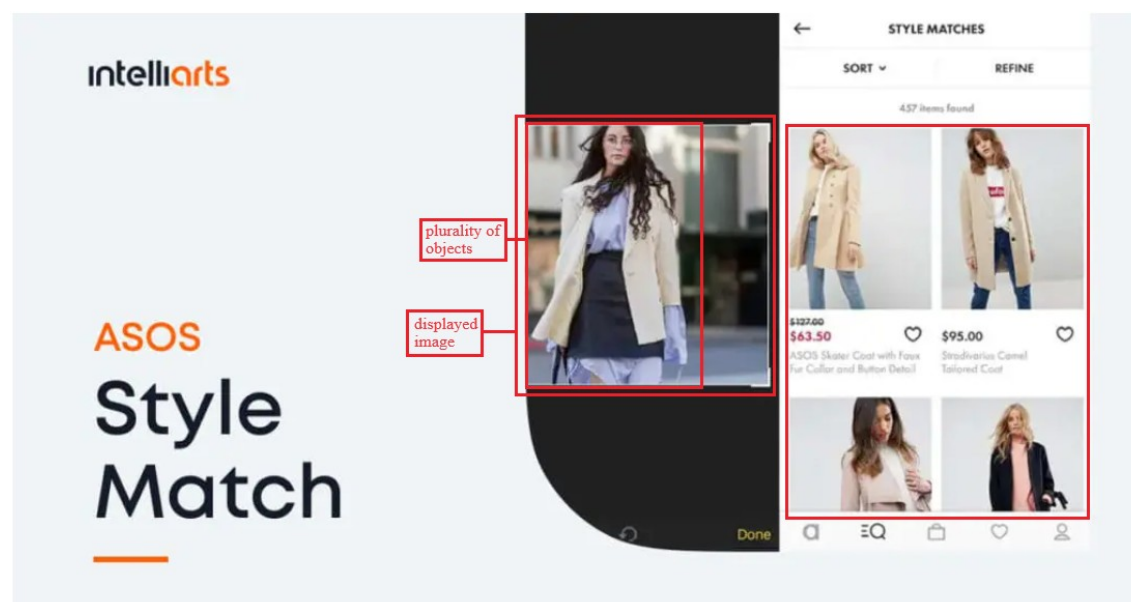


<https://postindustria.com/ai-clothing-detection-use-cases-for-fashion-and-e-commerce/>

|  |   |
|--|---|
|  | <p><u>A camera icon has been added to the search bar, which can be tapped to upload a picture on the application to trigger an image search. The application will search its portfolio of 85,000 items that are available on the website to find the best match for the picture uploaded by the user.</u></p> <p>The new tool adopts the ‘build-measure-learn’ approach to innovation, said the company in a press release. <u>The technology is still in its initial phase and will be improved with the help of machine learning and big data in the future.</u></p> <p><a href="https://us.fashionnetwork.com/news/Asos-app-now-features-visual-search-tool,858000.html">https://us.fashionnetwork.com/news/Asos-app-now-features-visual-search-tool,858000.html</a></p> <p><b>GLOBAL REACH</b></p> <p><u>ASOS Marketplace's global presence allows fashion enthusiasts from all corners of the world to access and purchase unique items from independent boutiques and sellers.</u> This international footprint brings together diverse styles, making it a go-to destination for global fashionistas.</p> <p><a href="https://www.getvendo.com/b/asos-multi-vendor-marketplace-success">https://www.getvendo.com/b/asos-multi-vendor-marketplace-success</a></p> |
| wherein the object is at least one of a spot on a displayed image on a display, a subarea of a space on the displayed image on | The accused instrumentality practices - wherein the object (e.g., footwear, apparel etc.) is at least one of a spot on a displayed image on a display, a subarea of a space on the displayed image on the display, one of a plurality of objects (e.g., one of the multiple objects in an image) in the displayed image (e.g., image captured using smartphone camera) on the display (e.g., smartphone display), an object in space, or near an object in space, a subarea of a surface in space, or one of a plurality of objects in space.   |

the display, one of a plurality of objects in the displayed image on the display, an object in space, or near an object in space, a subarea of a surface in space, or one of a plurality of objects in space

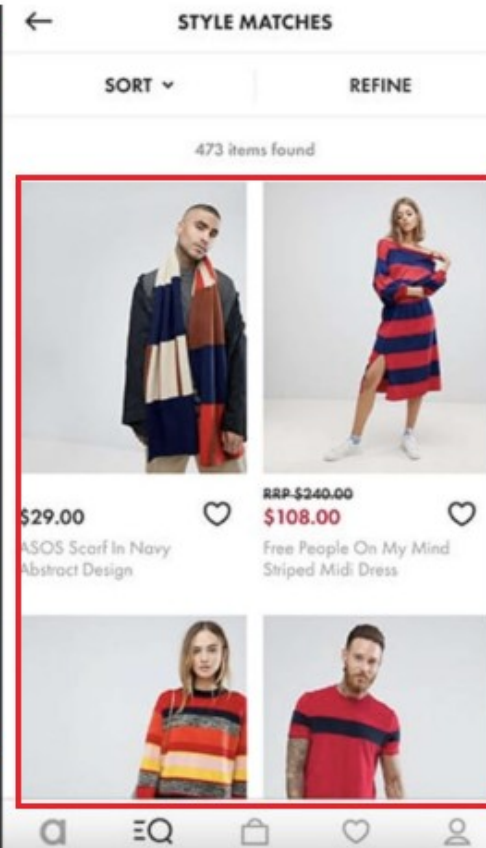
As shown below, the accused instrumentality, when enabled on a user's smartphone, is used to detect, and identify objects such as footwear, apparel in an image. When a user log's in to the accused instrumentality, and clicks on ASOS Lens, an image of surroundings can be taken using the smartphone's camera. This digital image is then analysed by the accused instrumentality (using machine learning) to identify objects. Among multiple objects identified in the image, the user can select to search for a specific object. Products similar to the selected object are then searched across ASOS database. These products are then presented to the user to view and buy.



<https://intelliarts.com/blog/visual-search-ecommerce/>

displayed  
image

plurality of  
objects



<https://postindustria.com/ai-clothing-detection-use-cases-for-fashion-and-e-commerce/>